In the Claims

The current claims for this application are listed below.

1. (Currently Amended) A method for establishing a point-to-point link between two peer nodes in a communications network, the method comprising:

dynamically assigning one of a client and server role to each of the two nodes ~~based on~~ by applying a rule to two identifiers corresponding to the two nodes, each node identifying the other node with one of the two identifiers; [[and]]

establishing an initial link between the two nodes based on the roles assigned to the nodes, the initial link based on a predefined client-server connection protocol;

establishing the point-to-point link between the two nodes based only on a ~~predefined client-server connection protocol~~ the initial link, wherein the point-to-point link is established without using a point-to-point connection protocol; and

closing, in response to establishing the point-to-point link, the initial link.

2. (Currently Amended) The method of claim 1, further comprising predefining the rule, wherein the rule assigns the client and server roles based on a numeric value of a network address of the two nodes.

3. (Canceled)

4. (Currently Amended) A method for establishing a peer-to-peer connection between two peer Fibre Channel Virtual Interface (FC-VI) ports, the method comprising:

dynamically assigning one of a client and server role to each of the two FC-VI ports, each of the two ports identifying the other port with an identifier and the assigning based on the identifier; [[and]]

establishing an initial connection between the two FC-VI ports based on the roles assigned to the ports based on a client-server connection protocol;

establishing the peer-to-peer connection between the two peer FC-VI ports using only [[a]] the ~~client-server~~ initial connection ~~protocol~~, wherein the port assigned the client role sends a peer-to-peer connection request to the port assigned the server role, the port assigned the server role accepts the peer-to-peer connection request, and the port assigned the client role acknowledges the acceptance and wherein the peer-to-peer link is established without using a peer-to-peer connection protocol;

closing, in response to establishing the peer-to-peer connection, the initial connection.

5. (Original) The method of claim 4, wherein dynamically assigning the client and server roles comprises performing a comparison of network addresses for the two peer FC-VI ports; and assigning the client and server roles based on the comparison.

6. (Currently Amended) A method for a first port in a communications network to establish a point-to-point link with a second port in the communications network, the second port being configured as a peer of the first port, the method comprising:

determining unique identifying information for a first peer node connected through a first port to a second peer node through a second port over a communications network ~~the first and second ports~~;

assigning one of a client and server role for the first port based on a rule applied to the unique identifying information for the first and second ports, the assigning signaling to the second port a role assignment; and

establishing the point-to-point link using a client-server connection protocol, wherein if the first port is assigned a client role, then the first port sends a point-to-point connection request to the second port; and if the first port is assigned the server role, then the first port ~~waits for~~ receives a point-to-point connection request from the second port

in response to the assigning and wherein the point-to-point link is established without using a point-to-point connection protocol.

7. (Original) The method of claim 6, wherein the rule defines the client and server roles based on a comparison of values associated with the unique identifying information for the first and second ports.

8. (Currently Amended) A computer readable storage medium, having stored thereon a sequence of instructions which when executed by a processor ~~storage device~~, cause the processor ~~storage device~~ to perform a method ~~for establishing a point-to-point link between two peer nodes in a communications network~~, the method comprising:

dynamically assigning one of a client and server role to each of the two nodes ~~based on~~ by applying a rule to two identifiers corresponding to the two nodes, each node identifying the other node with one of the two identifiers; [[and]]

establishing an initial link between the two nodes based on the roles assigned to the nodes, the initial link based on a predefined client-server connection protocol;

establishing the point-to-point link between the two nodes based only on ~~a predefined client-server connection protocol~~ the initial link, wherein the point-to-point link is established without using a point-to-point connection protocol; and

closing, in response to establishing the point-to-point link, the initial link.

9. (Currently Amended) The computer readable storage medium of claim 8, wherein the rule assigns the client and server roles based on a numeric value of a network address of the two nodes.

10. (Currently Amended) The computer readable storage medium having stored thereon a sequence of instructions which when executed by a processor ~~storage device~~, cause the

processor ~~storage device~~ to perform a method for establishing a peer-to-peer connection between two peer Fibre Channel Virtual Interface (FC-VI) ports, the method comprising:

dynamically assigning one of a client and server role to each of the two FC-VI ports, each of the two ports identifying the other port with an identifier and the assigning based on the identifier; [[and]]

establishing an initial connection between the two FC-VI ports based on the roles assigned to the ports based on a client-server connection protocol;

establishing the peer-to-peer connection between the two peer FC-VI ports using only [[a]] the ~~client-server~~ initial connection ~~protocol~~, wherein the port assigned the client role sends a peer-to-peer connection request to the port assigned the server role, the port assigned the server role accepts the peer-to-peer connection request, and the port assigned the client role acknowledges the acceptance and wherein the peer-to-peer link is established without using a peer-to-peer connection protocol;

closing, in response to establishing the peer-to-peer connection, the initial connection.

11. (Currently Amended) The computer readable storage medium of claim 10, wherein dynamically assigning the client and server roles comprises performing a comparison of network addresses for the two peer FC-VI ports; and assigning the client and server roles based on the comparison.

12. (Currently Amended) The computer readable storage medium having stored thereon a sequence of instructions which when executed by a processor ~~storage device~~, cause the processor ~~storage device~~ to perform a method ~~for establishing a point-to-point link with a second storage device in a communications network, the second storage device being configured as a peer of the first storage device~~, the method comprising:

determining unique identifying information for a first peer node connected through a first port to a second peer node through a second port over a communications network ~~the first and second ports~~;

assigning one of a client and server role for the first port based on a rule applied to the unique identifying information for the first and second ports, the assigning signaling to the second port a role assignment; and

establishing the point-to-point link using a client-server connection protocol, wherein if the first port is assigned a client role, then the first port sends a point-to-point connection request to the second port; and if the first port is assigned the server role, then the first port ~~waits for~~ receives a point-to-point connection request from the second port in response to the assigning and wherein the point-to-point connection is established without using a point-to-point connection protocol.

13. (Currently Amended) The computer readable storage medium of claim 12, wherein the rule defines the client and server roles based on a comparison of values associated with the unique identifying information for the first and second ports.

14. (Currently Amended) A storage device, comprising:

a processor; and

a memory coupled to the processor, the memory storing instructions which when executed by the processor, cause the storage device to perform a method for establishing a point-to-point link between two peer nodes in a communications network, the method comprising:

dynamically assigning one of a client and server role to each of the two nodes ~~based on~~ by applying a rule to two identifiers corresponding to the two nodes, each node identifying the other node with one of the two identifiers;

[[and]]

establishing an initial link between the two nodes based on the roles assigned to the nodes, the initial link based on a predefined client-server connection protocol;

establishing the point-to-point link between the two nodes based only on ~~a predefined client-server connection protocol~~ the initial link, wherein the point-to-point connection is established without using a point-to-point connection protocol; and

closing, in response to establishing the point-to-point link, the initial link.

15. (Original) The storage device of claim 14, wherein the rule assigns the client and server roles based on a numeric value of a network address of the two nodes.

16. (Currently Amended) A storage device, comprising:

a processor; and

a memory coupled to the processor, the memory storing instructions which when executed by the processor, cause the storage device to perform a method for establishing a peer-to-peer connection between two peer Fibre Channel Virtual Interface (FC-VI) ports, the method comprising:

dynamically assigning one of a client and server role to each of the two FC-VI ports, each of the two ports identifying the other port with an identifier and the assigning based on the identifier; [[and]]

establishing an initial connection between the two FC-VI ports based on the roles assigned to the ports based on a client-server connection protocol;

establishing the peer-to-peer connection between the two peer FC-VI ports using only [[a]] the ~~client-server~~ initial connection ~~protocol~~, wherein the port assigned the client role sends a peer-to-peer connection request to the port assigned the server role, the port assigned the server role accepts the peer-to-peer

connection request, and the port assigned the client role acknowledges the acceptance and wherein the peer-to-peer connection is established without using a peer-to-peer connection protocol;

closing, in response to establishing the point-to-point connection, the initial connection.

17. (Original) The storage device of claim 16, wherein dynamically assigning the client and server roles comprises performing a comparison of network addresses for the two peer FC-VI ports; and assigning the client and server roles based on the comparison.

18. (Currently Amended) A storage device, comprising:

a processor; and

a memory coupled to the processor, the memory storing instructions which when executed by the processor, cause the storage device to perform a method for a first port in a communications network to establish a point-to-point link with a second port in the communications network, the second port being configured as a peer of the first port, the method comprising:

determining unique identifying information for a first peer node connected through a first port to a second peer node through a second port over a communications network ~~the first and second ports~~;

assigning one of a client and server role for the first port based on a rule applied to the unique identifying information for the first and second ports, the assigning signaling to the second port a role assignment; and

establishing the point-to-point link using a client-server connection protocol, wherein if the first port is assigned a client role, then the first port sends a point-to-point connection request to the second port; and if the first port is assigned the server role, then the first port ~~waits for~~ receives a point-to-point

connection request from the second port in response to the assigning and wherein the point-to-point connection is established without using a point-to-point connection protocol.

19. (Original) The storage device of claim 18, wherein the rule defines the client and server roles based on a comparison of values associated with the unique identifying information for the first and second ports.